



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,547	12/31/2001	Allan Scherr	E30-050CON2	4626

7590 01/28/2003

George A. Herbster
Suite 303
40 Beach Street
Manchester, MA 01944

EXAMINER

GOSSAGE, GLENN A

ART UNIT	PAPER NUMBER
2187	

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
106/036,547			

EXAMINER

ART UNIT

PAPER NUMBER

7

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on 11-18-02 This action is made final. ✓

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. Notice of References Cited by Examiner, PTO-892.
2. Notice of Draftsman's Patent Drawing Review, PTO-948.
3. Notice of Art Cited by Applicant, PTO-1449.
4. Notice of Informal Patent Application, PTO-152.
5. Information on How to Effect Drawing Changes, PTO-1474..
6.

Part II SUMMARY OF ACTION

1. Claims 1-13 and 15-17 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. Claims 14 has _____ been cancelled.

3. Claims _____ are allowed.

4. Claims _____ are rejected.

5. Claims _____ are objected to.

6. Claims _____ are subject to restriction or election requirement.

7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. Formal drawings are required in response to this Office action.

9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).

11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).

12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.

13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. Other

EXAMINER'S ACTION

Art Unit: 2187

1. At the outset, it is noted that the amendment filed November 18, 2002 does not appear to be entirely proper since the intended amendments to claims 10 and 11 are not clear and were not made in accordance with 37 CFR 1.121.

More specifically, the remarks on page 6 of the amendment indicate that this application "was pending with claims 1 through 10 and 12 through 17" and that "Claims 1 through 10, 12, 13 and 15 through 17 remain in the application." However, claim 11 has never been canceled and is also still pending. Moreover, claim 10 as shown in the response filed November 18, 2002 is actually claim 11 (compare claims 10 and 11 as originally filed and claim "10" as presented in the amendment filed November 7, 2002, e.g.), and thus the amendments are not in accordance with 37 CFR 1.121.

Accordingly, claim "10" in the amendment filed November 18, 2002 has been renumbered as claim 11 for consistency, and in accordance with 37 CFR 1.126, the misnumbering being taken as a technical or typographical error. Claim 10 as originally filed also remains pending (no directions to cancel or otherwise amend this claim were provided in the amendment filed November 18, 2002), so that claims 1-13 and 15-17 remain pending.

Applicant is encouraged to carefully review all amendments to the claims to avoid possible confusion and/or mistake.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. A new title such as --CACHE

MANAGEMENT SYSTEM FOR A NETWORK DATA NODE HAVING A CACHE
MEMORY MANAGER FOR SELECTIVELY USING DIFFERENT CACHE MANAGEMENT
METHODS-- is suggested. The loss in brevity of title is more than offset by the gain in its
informative value in indexing, classifying, searching, etc. See MPEP 606 and 606.01.

3. The abstract of the disclosure is objected to because in lines 5-6, the wording “system cache management system” is not clear. It appears “system” in line 5 should be deleted for clarity. In line 15, the wording “the system is provides” is not clear. The proper antecedent for “the system” is also not entirely clear (note the “system” in lines 1 and 4, e.g.). [Should “ the system is” be changed to -- , the network accelerator storage caching system-- for clarity (to avoid possible antecedent problems)?] In line 14, --(CPU)-- should be inserted after “unit” for clarity and consistency.

Appropriate correction is required. See MPEP § 608.01(b) as well as 37 CFR 1.72(b).

4. The proposed drawing corrections filed November 18, 2002 have been approved by the Examiner, subject to drafting review.

The drawings remain objected to, however, because in Figure 2A, the label within “circle” or step 22 does not appear to be entirely clear and consistent with the language used in the specification. It appears “Entry” should be changed to --Entry into Configurator--, --Initial entry

Art Unit: 2187

made to configurator-- or other similar language for clarity and consistency (note the substitute specification at page 16, lines 11-12, e.g.).

Similarly, in Figure 2b, the label within “diamond” or step 24a does not appear to be entirely consistent with the language used in the specification. It appears within step 24a, “Store Through?” (as shown in the proposed drawing corrections filed November 18, 2002) should be changed to --Store through cache method for forms?-- or other similar language for clarity and consistency (see page 18, lines 13-14 of the substitute specification, e.g.). In steps 24b and 24d, it appears “process” should be changed to --Processing for-- for clarity and consistency (note the changes made in steps 24f, 24h, 24j, 24l, 24n and 24p, for example).

Also, it appears the labels “No” at the “tops” of steps 24m, 24k, 24i, 24g and 24e should be moved up somewhat (near the output of the previous step) for clarity.

In Figure 3, --data-- should be inserted after “LRU” in step or “box” 38 (as was done in “box” or step 36b in the proposed drawing corrections, e.g.) for clarity and consistency (note page 22, lines 4-6, e.g.).

In Figure 10b, within “box” or step 26f, it appears “page” should be changed to --page(s)-- for clarity and consistency (see page 31, lines 18-19, e.g.). Also, it appears steps 26c and 26d should be relabeled --26a-- and --26c--, respectively, for clarity and consistency (see Figure 10a, as well as page 31, line 12, e.g.).

Art Unit: 2187

Applicant is REQUIRED to submit a proposed drawing correction in reply to this Office action. However, actual formal correction of the noted defect can be deferred until the application is allowed by the examiner. Also note MPEP 608.02(r) and (v).

Appropriate correction is required.

5. The drawings are also objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “cache memory manager” of claim 1; the “method storage means” and “method selection means” of claims 2 and 15; the “monitoring means” of claims 3 and 16 (part of the cache memory manager in claim 3); the “means for receiving commands” of claims 4 and 17 (part of the “cache memory manager in claim 4), must be shown or the features canceled from the claims. No new matter should be entered.

5. It is noted here that the disclosure has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the disclosure. The following objections are specifically noted:

In the specification:

Art Unit: 2187

On page 5, line 17 (of the substitute specification filed November 18, 2002, it is not clear what is meant by “of the Reed Elsevier” here. In line 18, it appears --(AOL)-- should be inserted before “of” (second occurrence) for clarity.

On page 12, it appears ““as” in line 12 should be changed to --In a preferred embodiment, as --, and “may comprise ... depicts” in lines 4-6 changed to simply --comprises--, for clarity and consistency with the disclosure as originally filed and to avoid possible questions of NEW MATTER. In line 7, it appears --(or inexpensive)-- should be inserted after “independent” for consistency with the acronym as commonly used in the art. In line 18, it appears “device” should be --devices-- for clarity.

On page 13, line 12, it appears “cache management method or a” should be changed (back) to simply -or-- for clarity and consistency with the disclosure as originally filed and to avoid possible questions of new matter.

On page 19, lines 8-9, it appears “caching management” should be changed to --based cache management method-- (see line 3, e.g.). Similarly, in line 10, it appears “caching” should be changed to --cache management method- for clarity and consistency.

On page 30, lines 11-12, it appears “the configurator checks a data request” should be changed to --a data request is checked-- for consistency with the specification in the parent application.

Art Unit: 2187

On page 31, it appears “at step 26e” in line 12 should be deleted, and “More specifically, a” in line 13 changed to simply --A--, for clarity (when the passage is read in conjunction with Figure 10b).

On page 32, line 2, it appears “okay??” should be deleted for clarity. In line 3, it appears “question block” should be changed to --step-- for consistency. In line 4, it appears “is” should be changed to --it-- for clarity.

On page 33, line 11, it appears “Applescript” should be changed to --Apple Macintosh-- for consistency with the disclosure as originally filed and to avoid possible questions of new matter. In line 17, it is not entirely clear to what “techniques” are being referred. It appears “circuit (ASIC) or gate array techniques” in lines 16-17 should be changed (back) to --circuits (ASICs) or gate arrays-- for consistency with the disclosure as originally filed and to avoid possible questions of new matter.

In the claims:

In claim 1, line 9, it appears “said” should be deleted for clarity (to avoid possible antecedent problems, e.g.). In line 11, it appears --memory-- should be inserted before “management” for consistency (note claim 1, line 12, as well as claim 2, lines 4-5, e.g.). See also claim 2, line 3 and claim 5, lines 2 and 3, as well as corresponding parts of claims 6-11.

Art Unit: 2187

In claims 2-4 and 15, line 1, it appears “said” should be changed to --each-- for clarity (to avoid possible antecedent problems, e.g. Note that there are plural “sites” or “data nodes” set forth in the claim, each having a cache memory manager.).

Also in claim 2, line 3, it appears “plurality of” should be changed to --at least two-- for clarity and consistency (see claim 1, lines 10-11, e.g.). The proper antecedent for “said cache memory device” is also not entirely clear (note that there are plural “sites” or “data nodes” set forth in the claim, each having a cache memory device). It appears “said” in claim 2, line 5 should be changed to --a respective-- or --a corresponding-- for clarity.

Similarly, in claim 3, the proper antecedent for “said node” is not entirely clear. It appears “said” should be changed to --a respective-- for clarity.

In claim 4, line 2, it appears “including” should be --includes-- for clarity and consistency (note claim 3, lines 1-2, e.g.).

In claim 13, lines 1-2, it appears “said cache memory manager” should be changed to --the cache memory manager at one node-- for clarity (to avoid possible antecedent problems e.g. Again note that there are plural “sites” or “data nodes” set forth in the claim, each having a cache memory manager.).

Appropriate correction is required.

6. Claims 1-13 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, and therefore its dependent claims, the language “A data node at each of at least (two) sites in a data network” is somewhat unclear. Is “A (singular) data node being claimed? At least two data nodes? One or two sites?” A data network including at least two data nodes (sites)? Note also that the “sites” or “data nodes” (00, 02, 04 in Figure 1a, e.g.) appear to be coupled to the cache management systems 10. It is also not adequately clear to what the “cache memory manager” refers here, or how the “cache memory manager” is connected or related to the elements described in the specification and shown in the drawings. [Should “A data node” in line 1 be changed to --A cache management system--, and “of said data nodes” in line 2 changed to --cache management system--? Note that appropriate changes should then be made in the dependent claims (line 1, e.g.) for clarity and consistency. Should “cache memory manager” be changed to --control device--?] Note that the storage unit (cache memory device) and “control device” are shown as part of the “cache memory management system“ (“cache manager?”). See page 11, lines 7-8 and Figure 1a, e.g. It is also not entirely clear how the cache memory manager controls transfers “in response to” a method.

In claim 2, it is not readily apparent to what the “method storage means” refers here, or how “methods” are stored (support for language in the specification?). It is also not adequately clear

Art Unit: 2187

to what the "method selection means" refers in this instance, or how the different "means" in claim 2 are connected or related to the other elements set forth in the claims.

Similarly, in claims 3 and 4, as well as claims 16 and 17, it is not entirely clear to what the "monitoring means" and "means for receiving," which are within the cache memory manager, refer here, how they are connected or related to the other elements or "means" set forth in the claim. By way of example, it is not clear how the "monitoring means" and "means for receiving" are connected or related to the "method storing means" and "method selection means" within the cache memory manager.

Applicants are respectfully reminded that while 35 U.S.C. 112 sixth paragraph permits the use of "means plus function" language in a claim, this provision must always be considered as subordinate to the second paragraph of 35 U.S.C. 112 (see *In re Lundberg*, 244 F.2d at 547-548, 113 USPQ at 534 (CCPA 1979)). If one employs means plus function language in a claim, one must set forth an adequate disclosure showing what is meant by that language. If applicant fails to set forth such an adequate disclosure, applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112. See *In re Donaldson Company, Inc.*, 29 USPQ 2nd 1845 (Fed. Cir. 1994).

In the instant case, the language of the specification and claims is such that applicant has failed to provide an adequate disclosure showing to what the various "means" such as the "method storage means," "method selection means," "monitoring means" and "means for receiving" refer in this instance. The terms and phrases used in the claims must find clear

Art Unit: 2187

support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description (in this regard, see also 37 CFR 1.75(d)(1)).

In claim 13, it is not clear how the cache memory manager operates "with" a method (note that claim 1 states that the cache memory manager operates "in response to" one of the methods. Note also that the "methods" are claimed as part of the cache memory manager (see claim 2, lines 2-3, e.g.), not operating "with" or "in response to" the methods.

In claim 15, it is not entirely clear to what the "method storage means" refer here, or how "methods" are stored analogous to claim 2.

In claims 16 and 17, it is not entirely clear to what the "monitoring means" and "means for receiving" refer here, or how they are connected or related to the other elements or "means" set forth in the claim. By way of example, it is not clear how the "monitoring means" and "means for receiving" are connected or related to the "method storing means" and "method selection means" within the cache memory manager, or to the "cache memory manager" itself (in this regard, note the somewhat clearer language of claims 3 and 4, respectively).

In this regard, applicant's arguments filed November 18, 2002 have been considered but are not persuasive.

While the response indicates that the amendments to the claims overcome all the bases for rejection (response at page 8), the above issues do not appear to have been addressed by way of either amendment or argument.

Art Unit: 2187

7. Claim 13 is rejected under 35 U.S.C. 112, fourth paragraph, as failing to further limit the subject matter of a previous claim.

The limitations of claim 13 would appear to be encompassed within the language of claim 1, lines 1-2 and 9-13.

In this regard, the argument (in the response filed November 18, 2002) that the dependency of claim 13 has been changed to claim 1 (response at page 9) is not understood as the limitations of claim 13 would appear to be encompassed within the language of claim 1 as indicated above.

Applicant is required to cancel the claim, amend the claim to place the claim in proper form by further limiting the subject matter of a previous claim, or explain how the claim as presently worded further limits the subject matter of a previous claim.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Art Unit: 2187

Claims 1-6, 8, 12 and 13, insofar as definite and clear, are rejected under 35 U.S.C. 102(b) as being anticipated by Willick et al or Korner, each taken separately.

With respect to claim 1, Willick et al or Korner, each taken separately, discloses a data network including data “nodes” at each of first and second sites in the data network, each data “node” including a cache memory device connected to the data network, and a cache memory “manager” or controller connected to a respective cache memory device for controlling communications between the cache memory device and other sites in the data network, as in the present invention. Each of the cache memory managers or controllers controls transfers “in response to” one of at least two cache memory management methods (such as methods using simple LRU (or MRU) techniques, prefetching or preloading and frequency/usage based replacement (FBR) methods). The cache memory management method used or selected at a first site (a client workstation, e.g.) may be different than the cache management method used or selected at a second site (a server, e.g.). See pages 2-4 and 7-9 of Willick et al, and pages 220-221, 223 and 225-226 of Korner, e.g.

With respect to claims 12 and 13, the references teach that each of the data nodes may operate with a different predetermined cache memory management method. A cache memory manager at one site may operate “in response to” a predetermined cache memory management method that is different from the cache memory management method used at another network site (note also that there may be only two data nodes or sites such that each of the selected methods is different).

Art Unit: 2187

By way of example only, an LRU cache management algorithm or method, which may be selected from a plurality of cache management algorithms or methods, may be “selected” to optimize cache access efficiency at a particular network site and thus increase the operating speed. A user may thus configure and select the type of cache management algorithm to be used, which allows a user at a site in a network to address a particular need in an optimum way while, at the same time, allowing other network sites, such as a file server or content provider, to employ their own respective methods or solutions (selectively using MRU, preloading and readahead techniques, e.g.) to similarly address their own needs. This allows a user to optimize his or her site’s data usage need in an optimum manner without impacting other network sites.

[Note also that it would appear users on their home personal computers (PCS) connected to the Internet who optimize caching at their site or computer (by disabling caching or setting a cache size to zero, e.g.) or adjusting the cache size in a browser such as Netscape or Internet Explorer, would appear to infringe on the claims as broadly written. That is, a user on the Internet effectively has many choices on how to configure or select cache management techniques, and he may select one of many different caching methods. This choice may be made, of course, independent of other users or computers on the Internet, and thus each of the different users or sites on the Internet may be configured by “selecting” from one of many (at least two) cache management methods to optimize caching at its respective site.]

With respect to claims 2-3, by storing different parameters to be used in making different cache management or replacement decisions, the references may be considered to “store”

Art Unit: 2187

different cache management algorithms or “methods.” In this manner, different cache management algorithms or methods from all available cache management algorithms may be selected for different sites, i.e. a combination of different cache algorithms may be used to achieve optimum cache access efficiency and thus a higher operating speed. The systems may also monitor the performance of the cache management method currently being used or selected and adjustments may be made so as to further optimize cache management, i.e. different cache parameters, and thus a different cache management method, may be selected in order to optimize operation of the cache.

With respect to claim 4, each of the “nodes” includes some “means” for receiving commands from other nodes in the network, such as for reading or writing data at a particular node or site. The cache management method at a particular site may be selected depending on the commands received from the other nodes. That is, depending on the commands received, a different cache management method may be selected and thus the method “selection means” is responsive to the received commands.

With respect to claims 5 and 6, Willick et al and Korner et al teach selectively using least recently used (LRU) and frequency or usage based cache management methods.

Similarly, with respect to claim 8, Willick et al and Korner et al teach selectively using prefetching or readahead techniques as the cache management methods.

Art Unit: 2187

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willick et al or Korner et al, each taken separately.

Willick et al or Korner et al, each taken separately, discloses a data node at different sites in a data network, each data “node” including a cache memory device and a cache memory “manager” or controller connected to a respective cache memory device for controlling communications between the cache memory device and other sites in the data network, where a cache memory manager or controller controls transfers “in response to” one of at least two cache memory management methods as in the claimed invention (see numbered paragraph 8 above), but does not explicitly teach using cache management methods such as store-through, B-tree, indexing or charging cache management methods.

However, different cache management strategies or methods may obviously be utilized with different types of data and storage units (B-trees are well known to be a fast way to organize data on a disk, while an indexed method of cache management is known to efficiently organize data such as for Internet data), and the selection of one cache management method from among a plurality of well known cache management methods such as store-through, B-tree, indexing or

Art Unit: 2187

charging cache management methods from among the cache management methods or algorithms in the system of Willick et al or Korner et al based on a particular user's or system's needs does not render the claimed invention patentably distinct.

10. Claims 15-17, insofar as definite and clear, would appear to be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Applicant's arguments filed November 18, 2002 have been considered but are not persuasive. It is believed applicant's arguments have been addressed in the preceding paragraphs.

Also, the argument that the Korner article is describing an algorithm which should be used exclusively in a disk caching system (response at page 10) is not persuasive because Korner et al teaches that while file service cache management is specifically discussed, the use of the intelligent caching algorithm is applicable to a wide variety of caching situations (see page 225, column 2, last paragraph, and page 226, column 2, e.g.), and clearly indicates that it is only necessary that a variety of cache management strategies be useful (again see page 225, column 2, last paragraph).

The argument that "Applicant sees nothing in this that would suggest the use of different cache memory management methods at a single node under different operating conditions"

(response at page 10) is similarly not persuasive because Korner et al clearly teaches that differing cache management techniques can be selected (column 226, column 2 and column 225, column 2, last paragraph) and that it is desirable to recognize when certain situations are in effect and to modify caching strategies accordingly (see page 221, column 1). Korner et al further teaches that the intelligent caching algorithm may dynamically change (in response to “hints,” e.g.) so that an appropriate cache algorithm for certain information may be used or selected and so that a different cache management technique or method may be “selected” under different operating conditions (see page 221, column 1, paragraph 5 and page 223, column 2, first paragraph, e.g.). Under certain conditions, prefetching/preloading and/or readahead may be used while under other conditions (for certain data or file types, e.g.), prefetching/preloading and/or readahead may not be used. Some of the different “methods” or algorithms may be selectively combined as in the present invention (in this regard, note page 223, column 2, first paragraph of Korner et al, as well as page 11, lines 11-13 and page 26, lines 8-11 of the present specification).

Also, the argument that the Willick et al article is merely suggesting the use of a caching algorithm between a disk and its host based upon specific criteria and that “Applicant sees nothing in this that would suggest the use of a selection from multiple cache management methods at a single node under different operating conditions” (response at page 11) is also not persuasive because Willick et al fairly teaches using sophisticated or intelligent cache management strategies (such as in Korner), in which one of a plurality of cache management strategies or methods may be dynamically selected depending on certain conditions, in

Art Unit: 2187

conjunction with the frequency based cache management strategies discussed throughout Willick et al (see page 3, column 1, paragraph 1 and page 9, column 1, last paragraph, e.g.).

The claim language “wherein the cache memory manager controls transfers in response to one of at least two different cache management methods” (see claim 1, lines 9-11) is thus seen to be met and the prior art of record is seen to teach or disclose a cache memory manager which has the ability to select one of at least two different cache memory management methods which are based upon dynamic conditions at a particular node just as in the present invention, contrary to applicant’s assertion in the response (see the response at page 12, e.g.).

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2187

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Gossage whose telephone number is (703) 305-3820.

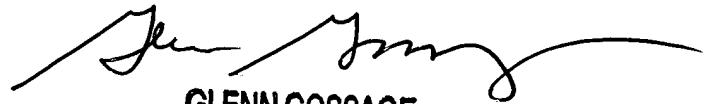
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Do Yoo, can be reached on (703) 308-4908.

The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703) 746-7238 (After Final Communications)
(703) 746-7239 (Official Communications)

(703) 746-5713 (Use this FAX number only after approval by the Examiner, for "INFORMAL" or "DRAFT" communications. An Examiner may request that a formal paper/amendment be faxed directly to him or her on occasion.)



GLENN GOSSAGE
PRIMARY EXAMINER
ART UNIT 2187